

Silicon NPN Power Transistors

2SC2809

DESCRIPTION

- With TO-3PN package
- High speed switching
- High breakdown voltage
- Wide area of safe operation

APPLICATIONS

- For power amplifier applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

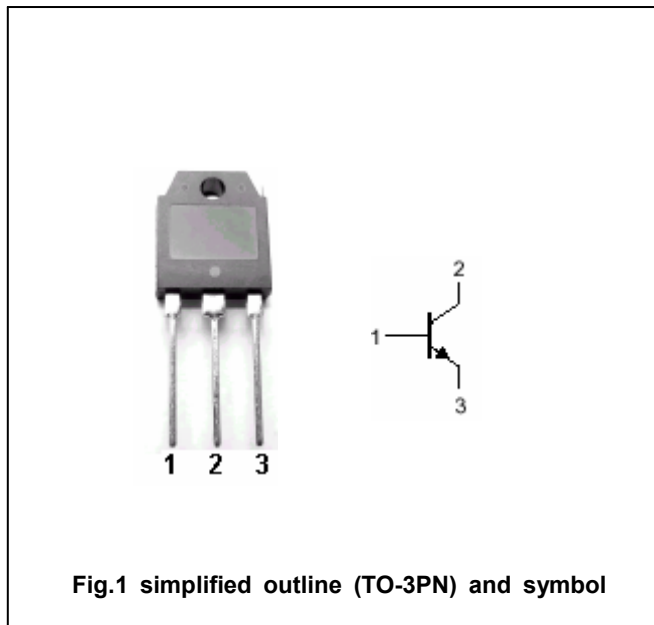


Fig.1 simplified outline (TO-3PN) and symbol

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	300	V
V_{CEO}	Collector-emitter voltage	Open base	300	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		2	A
I_{CM}	Collector current-Peak		4	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	50	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =10mA ; I _B =0	300			V
V _{(BR)CBO}	Emitter-base breakdown voltage	I _C =1mA ; I _E =0	300			V
V _{CE(sat)}	Collector-emitter saturation voltage	I _C =1.5A ; I _B =0.3A			1.0	V
V _{BE(sat)}	Base-emitter saturation voltage	I _C =1.5A ; I _B =0.3A			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =300V I _E =0			100	μA
I _{EBO}	Emitter cut-off current	V _{EB} =6V ; I _C =0			100	μA
h _{FE}	DC current gain	I _C =0.3A ; V _{CE} =4V	50			
f _T	Transition frequency	I _C =0.3A ; V _{CE} =12V		20		MHz

